Benefit-sharing in Marine Areas beyond National Jurisdiction

Benefit-sharing in marine areas beyond national jurisdiction: where are we at? (Part I)

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For ten years negotiators in New York have been debating the need for a new international agreement to ensure benefit-sharing from the use of marine genetic resources in the deep seas. A decision on this matter is expected by the end of 2015, but much remains to be clarified as to whether and how benefit-sharing can be framed in that context. This blog post discusses the state of these negotiations and identifies some of the key legal questions that remain unanswered.

Marine Genetic Resources in the Deep Seas

The vast majority (approximately 98%) of known marine species lives on the ocean floor, which includes extreme-temperature and -pressure environments at great depths such as seamounts, hydrothermal vents and cold-water coral reefs. International concerns have been growing about the increasing pressure posed by existing and emerging human activities that may destroy these unique forms of life before we even begin to know and understand them. Marine genetic resources (the genetic material of, for instance, deep-sea marine sponges, krill, corals, seaweeds, bacteria) in these remote and mysterious areas of the oceans are attracting increasing scientific and commercial attention as they are likely to possess unique characteristics that may lead to ground-breaking innovations in the pharmaceutical and food industries, among others.

A 2007 report concluded that the potential of marine genetic resources for development is substantial and of growing importance, but information is scattered and difficult to access for the non-specialized public. Public-private partnerships are usually involved in efforts to explore and develop these resources ("bioprospecting"): private companies fund academic and public-sector researchers to collect marine genetic samples from the depths of the oceans, or to obtain access to samples already held by research institutions. There are also prominent cases of global expeditions that are at present collecting marine genetic resources in the deep sea with the purpose of promoting universal access to samples and data for the benefit of scientific progress.

That said, there is also an increasing trend of "privatizing" innovations derived from marine genetic resources by protecting them through intellectual property rights (IPRs). According to a 2011 *Science* article, only 10 countries account for 90% of patents related to marine genetic resources (the US, Japan, certain EU countries, Switzerland and Norway). Developing countries, therefore, are clearly not part of current bioprospecting efforts, due to technological barriers in accessing marine genetic resources in the deep seas. For the past ten years or more, developing countries have thus demanded that an international regime be put in place to ensure that all countries benefit from the economic returns deriving from living organisms that do not belong only to technologically advanced States on the basis of the general principle of equity.

Different views of equity

These demands and counterarguments need to be understood against the background of the international law of the sea. Accordingly, marine genetic resources are found in two distinct areas of the oceans: the high seas (the water column beyond the limits of national jurisdiction) and the Area (the deep seabed beyond the limits of national jurisdiction) – taken together they present 2/3 of the oceans. In both areas, natural resources do not belong to any State, but are subject to different international regimes. As the UN Convention on the Law of the Sea (UNCLOS) is silent with regard to marine genetic resources – a concept that had not penetrated the international community's awareness at the time of the adoption of UNCLOS – marine genetic resources in areas beyond national jurisdiction may be considered "unregulated". Or, it can be argued that it remains to be clarified whether and how marine genetic resources "fit" into the existing international law of the sea.

Developing States have argued that an approach similar to that for exploring and exploiting mineral resources in the deep seabed (that is, under the centralised and control and administration of the International Seabed Authority) should be adapted to marine genetic resources, as both are activities that are only available to high-tech countries and for that reason raise the same equity concerns. Developing countries are therefore advocating that marine genetic resources in the deep seabed should be subject to the common heritage regime. This would mean that marine genetic

resources could not be appropriated exclusively by any State, but rather conserved and exploited only for the benefit of humankind, without discrimination. The latter would be achieved by placing marine genetic resources under an international institution to manage and regulate activities concerning these resources which must be conducted for peaceful purposes and that would allow for sharing the revenues arising from their exploration and exploitation, as well as sharing relevant technology and research results and building capacity by allowing participation in scientific expeditions and follow-up research.

Developed countries have opposed this approach categorically. On the one hand, the US, Canada and Japan have argued that the use and protection of marine genetic resources in areas beyond national jurisdiction falls under the regime of the freedom of the high seas (including freedom of marine scientific research). In this view, marine genetic resources may be appropriated by any State on a first-come-first-served basis. Legally, the argument is based on the understanding that the high seas freedoms are the default regime that applies in the absence of an explicit indication to the contrary in UNCLOS. Offering a different equity perspective, these States opine that research and development on marine genetic resources in the deep seas is a highly costly and time-consuming endeavor with uncertain results, that when successful would benefit humanity in the form of scientific advancements contributing to global public health, food security and environmental protection. These countries have indicated openness to some form of benefit-sharing, either through codes of conduct or the ad hoc sharing of data and reearch results, capacity building and scientific collaboration.

On the other hand, the EU and New Zealand have supported a middle-ground position – the development of a new international regime for multilateral benefit-sharing that would not be based on the other premises of the common heritage approach, as part of an integrated approach to the conservation and sustainable use of biodiversity in areas beyond national jurisdiction.

A new implementing agreement under the UN Convention on the Law of the Sea?

These discussions have taken place in the context of the UN General Assembly's *Ad Hoc* Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, established in 2004. Basically, this process was created to identify gaps in the international legal regime concerning the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction and subsequently consider proposals for the development of an additional agreement under UNCLOS (an "implementing agreement") to adapt its general provisions on the protection of the marine environment to the specific threats to, and the value of, marine biodiversity.

The proposal to develop a new UNCLOS implementing agreement was first put forward by NGOs as early as 2006,and successively bought by the EU and eventually the Group of Developing Countries, Australia and New Zealand. Only a few, key States remain to be convinced of the need for a new implementation agreement: the United States, Canada, South Korea, Japan and the Russian Federation.

A crucial point was reached in 2011 when a package of issues that could be addressed in a new implementing agreement under the UN Convention on the Law of the Sea was identified, namely: *marine genetic resources, including questions on benefit-sharing*; but also measures such as area-based management tools, including marine protected areas and environmental impact assessments; capacity building and the transfer of marine technology. After that, discussions took a procedural, and somewhat circular, turn, with repeated recommendations to "initiate" a processwith a view to ensuring a legal framework on marine biodiversity beyond national jurisdiction which gathered momentum at the 2012 UN Conference on Sustainable Development. Finally, by the end of 2013 the UN General Assembly established a timeline (end of 2015) for taking a decision on the development of an international instrument under UNCLOS. To that end, three meetings of the Working Group have been scheduled in 2014-2015 to discuss the feasibility, scope and parameters of a new international instrument on marine biodiversity under UNCLOS, with a view to preparing for a decision by the General Assembly before the end of its sixty-ninth session.

The General Assembly's Working Group has thus convened from 1-4 April 2014, and will convene again from 16-19 June 2014 and from 20-23 January 2015. One of the bones of contention is whether the new agreement will also address fisheries. Another is whether and how the new regime will address benefit-sharing.

Open questions on benefit-sharing

States are to provide written submissions on the scope, parameters and feasibility of the instrument. The compilation of submissions is expected to be expanded and refined as a 'living' working document, and provide some insights into country positions on questions of benefit-sharing and marine genetic resources in the deep seas. Unfortunately the compilation of submissions is only made available to national delegations and not to other stakeholders (NGOs and international organizations) involved in the negotiations, continuing a tradition of limited transparency in the proceedings that has long characterized this process.

Nevertheless, country positions were also voiced at the April meeting, which was open to observers. Developing countries reiterated their position for a common heritage regime, but without providing any further details as to how a system devised for non-living resources could be adapted to the specificities of research and development on living organisms. In addition, different views appear to have emerged as to the kind of international institution that would be needed to operationalize such

a regime: a brand-new body, or the international body already in charge of the common heritage regime for mining in the seabed, the International Seabed Authority? While the Authority has considerable knowledge of the marine environment in the deep seabed, it remains to be seen whether it is fully equipped to expand its remit from minerals to marine lifeforms. Also, the Authority has yet to start any work on benefit-sharing, as mineral prospecting in the deep seabed is much less advanced than bioprospecting. That said, in a time of economic crisis, using existing institutions for saving on resources is a powerful argument.

Developed countries in favour of developing a *sui generis* international benefit-sharing regime have instead focused attention on the need to further understand what can be learnt from existing international instruments dealing with access and benefit-sharing to genetic resources for research and development purposes, such as the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) and the Nagoya Protocol on Access to Genetic Resources and Benefit-sharing adopted in 2010 under the Convention on Biological Diversity. In particular, the EU has argued that the ITPGR could serve as a model, but has so far provided no details on how this system (focused on terrestrial resources in areas within national jurisdiction) could contribute to discussions.

The types of benefits to be shared are also under discussion, although there seems to be a general understanding that these can be both monetary and non-monetary (see also 2014 IUCN report). They are likely to include access to samples and sample collections, the sharing of profit from the commercialisation of products derived from marine genetic resources, access and transfer of technology and capacity building, and data and knowledge sharing. The main hurdle in this discussion is whether or not to address questions related to IPRs, which are the usual legal tool employed to derive profit from innovation. In addition, IPRs may also be useful to monitor the use of marine genetic resources (by screening information on the origin of marine genetic resources in patent applications) and detect possible violations of the benefit-sharing obligations.

Several other questions have been identified by the US: how should marine genetic resources be defined? Could a fish be considered a marine genetic resource? Would a benefit-sharing regime also require controls on or conditions for access to marine genetic resources? Would benefit-sharing also apply to non-commercial research on these resources? Who in the very long chain from basic research to product sales would be required to share benefits (the end user, the State of the end user, the seller, the State of the seller)? And to whom would the benefits go and on what basis will they be distributed?

Much common ground therefore remains to be found with regard to benefit-sharing in the deep seas, not only to balance Noth-South equity concerns but also to tackle the urgent need to conserve marine biodiversity. The continuous destruction of deep-sea

organisms may well annihilate the very object of these discussions by the time agreement is reached.

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